AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A liquid crystal display (LCD) device having a gamma voltage correcting apparatus, wherein the LCD device has a display panel that includes a plurality of pixels defined by gate lines and data lines ~~for a liquid crystal display wherein a liquid crystal pixel is arranged at each intersection between data lines and gate lines and video data is corrected by a preset gamma voltage to display an image~~, said LCD device [[apparatus]] comprising:

a display controller for receiving video data and vertical and horizontal synchronizing signals and outputting the video data and a clock;

the gamma voltage correction apparatus including;

a memory means for storing at least two sets of gamma data ~~for controlling the gamma voltage~~ for ~~each of~~ at least two input modes,[[;]]

a gamma control means for accessing one set of the gamma data ~~for each mode~~ in response to a selection signal ~~an instruction from a user, ; and~~

a multi-channel gamma voltage generator for responding to the one set of the gamma data ~~for a mode selected by the control means~~ to generate n gamma voltages (wherein n is an integer) having a different voltage level ~~indicated by the gamma data for the selected mode~~, and

a column driver connected to the display panel, wherein the column driver receives the video data and the clock from the display controller and the n gamma voltages from the gamma voltage correction apparatus, and then corrects the video data using the n gamma voltages and applies the corrected video data to the data lines.

2. (Currently Amended): The gamma voltage correcting apparatus according to claim 1, wherein the selection signal is provided to the gamma voltage correction apparatus by a user ~~further comprising a column driver for correcting the video data using the gamma voltage from the multi-channel gamma voltage generator and supplying the corrected video data to the data lines~~.

3. (Currently Amended): The gamma voltage correcting apparatus according to claim 1 [[2]], further comprising a buffer unit for buffering a signal having the gamma voltage from the multi-channel gamma voltage generator to apply it to the column driver.

4. (Original): The gamma voltage correcting apparatus according to claim 1, further comprising a voltage-dividing resistor for dividing the n gamma voltages into m gamma voltages (wherein m is an integer larger than n) having a different voltage level.

5. (Original): The gamma voltage correcting apparatus according to claim 1, where in the multi-channel gamma voltage generator includes:

a data receiver for receiving the gamma data and a clock signal in the m ode selected by the control means;

a reference voltage generator for dividing an externally supplied supply voltage to generate the gamma voltages having a different voltage level; and

n gamma voltage selectors (wherein n is an integer) for interpreting the gamma data from the data receiver to select a reference voltage indicated by the gamma data for the gamma voltages from the reference voltage generator.

6. (Original): The gamma voltage correcting apparatus according to claim 1, wherein the memory means and the control means are integrated into a single integrated circuit.

7. (Original): The gamma voltage correcting apparatus according to claim 2, further comprising:

a row driver for sequentially applying a scanning pulse to the gate lines to drive the gate lines; and

a timing controller for supplying red, green and blue digital video data to the column driver and for applying a desired timing control signal to the row driver.

8. (Original): The gamma voltage correcting apparatus according to claim 7, wherein the memory means, the control means and the timing controller are integrated into a single integrated circuit.

9. (Original): A video data correcting apparatus for a liquid crystal display which includes a liquid crystal panel having a liquid crystal pixel arranged at each intersection between data lines and the gate lines, said apparatus comprising:

memory means for storing a lookup table in which color temperature correction data for correcting a color temperature characteristic of an input image is set in correspondence with a gray level value of the input image;

memory control means for accessing the lookup table of the memory means in accordance with the gray level value of the input image to read out the color temperature correction data corresponding to the gray level value of the input image; and

data driving means for driving the data lines using the color temperature correction data from the memory control means.

10. (Original): The gamma voltage correcting apparatus according to claim 9, further comprising:

a row driver for sequentially applying a scanning pulse to the gate lines to drive the gate lines; and

a timing controller for supplying the input image to the memory control means and for applying a desired timing control signal to the row driver.

11. (Original): The gamma voltage correcting apparatus according to claim 9, wherein the color temperature correction data is measured after controlling the input image such that a color temperature of a displayed image on the liquid crystal display maintains approximately 6500 K.

12. (Original): The gamma voltage correcting apparatus according to claim 9, wherein a displayed image of the liquid crystal display on which the color temperature correction data is displayed maintains a brightness and a contrast equal to the input image.

13. (Currently Amended): A method of correcting a gamma voltage in a liquid crystal display wherein a liquid crystal pixel is arranged at each intersection between data lines and gate lines and video data is corrected by a preset gamma voltage to display an image, said method comprising:

receiving video data and vertical and horizontal synchronizing signals and outputting the video data and a clock;

storing at least two sets of gamma data for ~~controlling the gamma voltage for each of~~ at least two input modes;

accessing the gamma data ~~for each mode~~ in response to an instruction from a user;

selecting one set of ~~any one of~~ the gamma data for each mode; [[and]]

responding to the one set of the gamma data for the selected mode to generate n gamma voltages (wherein n is an integer) having a different voltage level; ~~indicated by the gamma data in the selected mode~~

correcting the video data using the n gamma voltages; and

applying the corrected video data to the data lines.

14. (Original): The method according to claim 13, wherein the gamma data is set differently in accordance with each mode set in correspondence with peripheral equipment interchangeable with the liquid crystal display.

15. (Original): The method according to claim 13, wherein the gamma data is set differently in accordance with each mode set in correspondence with an optical recording medium player, a television image signal display device, and a camcoder.

16. (Original): The method according to claim 13, further comprising the steps of:

dividing the n gamma voltages into m gamma voltages (wherein m is an integer larger than n) having a different voltage level; and

correcting the video data using the m gamma voltages and supplying the corrected video data to the data lines.

17. (Original): The method according to claim 16, further comprising:

buffering the m gamma voltages and applying the buffered m gamma voltages to the column driver.

18. (Original): A method of correcting video data in a liquid crystal display which includes a liquid crystal panel having a liquid crystal pixel arranged at each intersection between data lines and gate lines, said method comprising:

providing a lookup table in which color temperature correction data for correcting a color temperature characteristic of an input image is set in correspondence with a gray level value of the input image;

accessing the lookup table in accordance with the gray level value of the input image to read out color temperature correction data corresponding to the gray level value of the input image; and

driving the data lines using the color temperature correction data.

19. (Original): The method according to claim 18, wherein the color temperature correction data is data measured after controlling the input image such that a color temperature of a displayed image on the liquid crystal display maintains approximately 6500 K.

20. (Original): The method according to claim 18, wherein a displayed image of the liquid crystal display on which data corrected by the color temperature correction data is displayed maintains a brightness and a contrast equal to the input image.

21. (Currently Amended): A device for providing a desired gamma voltage for a liquid crystal display (LCD), said device comprising:

a memory for storing gamma data corresponding to a plurality of modes;

a controller for receiving an external mode signal and in response thereto selecting selected gamma data from the memory; [[and]]

a means having a multi-channel digital-to-converter (DAC) for generating a plurality of gamma reference voltages according to the selected gamma data, the DAC further including a reference voltage generator for receiving a supply voltage and generating a plurality of reference voltages and a data receiver for receiving the reference voltages and the selected gamma data and generating therefrom the plurality of gamma reference voltages; and

a gamma voltage generator receiving the plurality of gamma reference voltages and generating therefrom a plurality of gamma voltages,

wherein each of the plurality of modes corresponds to a different source video generator for providing video data to the LCD.

22-24 (Cancelled)

25. (Original): The device of claim 21, wherein the gamma voltage generator comprises a resistor divider network.

26. (Currently Amended): The device of claim 21 [[24]], further comprising means for selecting the selected gamma voltage from the plurality of gamma voltages.

27. (Original): The device of claim 26, wherein the means for selecting the selected gamma voltage comprises a DAC.

28. (Cancelled)

29. (Currently Amended): A method of providing a desired gamma voltage for a liquid crystal display having a plurality of pixels defined by gate lines and data lines, comprising:

receiving video data and vertical and horizontal synchronizing signals and outputting the video data and a clock;

storing a plurality sets of gamma data corresponding to a plurality of modes in a memory device;

receiving an external mode signal and in response thereto selecting selected gamma data from the memory; [[and]]

generating a plurality of gamma reference voltages according to the selected gamma data;

generating a plurality of gamma voltages from the plurality of gamma reference voltages;

correcting the video data using the gamma voltages; and

applying the corrected video data to the data lines.

30. (Original): The method of claim 29, wherein generating the plurality of gamma reference voltages comprises:

receiving a supply voltage and generating therefrom a plurality of reference voltages; and

generating the plurality of gamma reference voltages from the gamma data and the plurality of reference voltages.

31. (Cancelled).

32. (Currently Amended): The method of claim 30 [[31]], wherein generating the a plurality of gamma voltages comprises dividing the plurality of gamma reference voltages in a divider

network.

33. (Currently Amended): The method of claim 30 [[31]], further comprising selecting the selected gamma voltage from the plurality of gamma voltages.

34. (New): A display device having a gamma voltage correcting part, wherein the display device has a display panel that includes a plurality of pixels defined by gate lines and data lines, the display device comprising:

a display controller for receiving video data and vertical and horizontal synchronizing signals and outputting the video data and a clock;

the gamma voltage correction part including;

a memory for storing at least two sets of gamma data for at least two input modes,

a gamma controller for accessing one set of the gamma data in response to a selection signal,

a multi-channel gamma voltage generator for responding to the one set of the gamma data to generate n gamma voltages (wherein n is an integer) having different voltage levels, and

a column driver connected to the display panel, wherein the column driver receives the video data and clock from the display controller and the n gamma voltages from the gamma voltage correction part, and then corrects the video data using the n gamma voltages and applies the corrected video data to the data lines.

35. (New): The display device according to claim 34, wherein the selection signal is provided to the gamma voltage correction apparatus by a user.

36. (New): A display device having a gamma voltage correcting part, wherein the display device has a display panel that includes a plurality of pixels defined by gate lines and data lines, the display device comprising:

a display controller for receiving a first video data and vertical and horizontal synchronizing signals and outputting a second video data and a clock;

a lookup table driver connected to the display controller for adjusting color temperature of the second video data and outputting a third video data;

the gamma voltage correction part including;

a memory for storing at least two sets of gamma data for at least two input modes,

a gamma controller for accessing one set of the gamma data in response to a selection signal,

a multi-channel gamma voltage generator for responding to the one set of the gamma data to generate n gamma voltages (wherein n is an integer) having different voltage levels, and

a column driver connected to the display panel, wherein the column driver receives the third video data and the n gamma voltages, and then corrects the third video data using the n gamma voltages and applies the corrected video data to the data lines.